

REMARKS/ARGUMENTS

Claim 1 is amended. Claims 2 and 3 remain in this application. Claims 4 and 5 were canceled. Claims 6-8 are new.

The claim amendment is supported by: 1) representations of the storage compartments shown in Figures 2 and 3; and 2) the specification at page 6, lines 4-9 (or paragraph [0029] of publication No. US 2001/0002986). No new matter is added.

Applicants request the examiner reconsider and withdraw the claims rejections in view of the above amendments and following remarks.

Patent Office Interview

Applicants gratefully acknowledge the opportunity to discuss this application through a personal interview with Examiners Elizabeth Kwan and Jill Warden on February 10, 2004, at which time applicants' representative provided various demonstrative exhibits for discussion. Applicants' representative also discussed the distinction between the cited references and applications' invention.

### The Present Invention

Applicants' claimed invention is a rack for use in a compound handling system for handling a multiplicity of tubes containing aliquots of chemical or biological samples. The rack comprises a single piece frame, storage compartments within the frame, and means for retaining a sample tube within each of the storage compartments. The single piece frame has a top side and a bottom side, both capable of receiving the sample tube. The storage compartments within the frame are each configured and dimensioned to receive a sample tube containing a chemical or biological sample. The storage compartments are adjacent to each other and defined by separation walls between them. Each of the storage compartments has an inner wall and is open at the top side of the frame and open at the bottom side of the frame so that a sample tube is insertable into the storage compartment from both the top side of the frame and the bottom side of the frame, and is removable from the storage compartment from both the top side of the frame and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame. The cross section of each storage compartment is constant over the entire length of the storage compartment whereby a sample to be inserted into the storage compartment through the top opening thereof can be removed from the storage through the bottom opening of the storage compartment. The means for retaining a sample tube within each of the storage compartments are an integral part of the frame. The retaining means comprises a projection of the inner surface or the wall of each storage compartment, the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment.

### Claim Rejections under 35 U.S.C. 102(b)

Claims 1 and 4 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Leoncavallo. Applicants traverse this rejection.

To anticipate a claim, a single source must contain all of the elements of the claim. See, Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). Further, the single source must disclose all of the claimed elements arranged as in the claim. See, Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicants submit that Leoncavallo does not anticipate claims 1 and 4.

Leoncavallo does not disclose any storage compartments for a sample tube, but only openings or cutouts 24 of a shelf 12 through which a sample tube can be inserted. These openings are associated with retaining means 34. However, the retaining means disclosed by Leoncavallo do not retain a sample tube at a predetermined position, but at any position within a predetermined range. Moreover, Leoncavallo only discloses insertion of a sample tube into openings 24 from above (see column 3, lines 39-41, and Fig. 7), and does not disclose a rack capable of having a sample tube inserted into openings 24 from below. In fact, insertion of the tubes from below is not possible in view of the shape of the tubes and the shape of the retaining means disclosed by Leoncavallo. Leoncavallo fails to teach or suggest adjacent storage compartments adjacent to each other and defined by walls between them. Leoncavallo further does not teach or suggest projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment. Therefore, Leoncavallo does not anticipate claim 1.

Reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. 102(b) as allegedly being anticipated by Leoncavallo are respectfully requested.

Claim 1 was also rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,579,929 ("Schwartz"). Applicants traverse this rejection.

In contrast to applicant's invention, Schwartz does not disclose a storage compartment for sample tubes. Rather, Schwartz provides openings or cutouts of a base plate 11 through which sample tubes can be inserted. Unlike the present invention, Schwartz's openings are not adjacent to each other and are not defined by separation walls between them, as is required in applicants' claim 1. The openings shown by Figures 14-17 of Schwartz have retaining means 24, 25, 51, but these retaining means do not retain a sample tube at a predetermined position. Like Leoncavallo, retention of the sample tube is at any position within a predetermined range. Column 1, lines 41-44, points out as aim the possibility of arresting the workpiece (e.g. a sample tube) at different levels. Column 6, lines 14-17, points out the need for an abutment for the workpiece so that it can be positioned exactly. Furthermore, as with Leoncavallo, Schwartz only discloses insertion of a sample tube into compartment 14 from above, not from below. Insertion of the tubes from below

is not possible in view of the shape of the tubes and the shape of the retaining means disclosed by Schwartz. Schwartz does not teach or suggest storage compartments adjacent to each other and defined by walls between them. Schwartz also does not teach or suggest projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment. Accordingly, Scharzt cannot anticipate applicants' claim 1.

Reconsideration and withdrawal of the rejection to claim 1 under 35 U.S.C. 102(b) as being anticipated by Schwartz is respectfully requested.

Claim Rejections Under 35 U.S.C. 103(a)

Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Leoncavallo, and further in view of Berthold. Applicants traverse this rejection.

The motivation to modify the prior art must flow from some teaching in the art that suggests the desirability or incentive to make the modification need to arrive at the claimed invention. Ransomes, Inc. v. Great Danes Power Equipment, Inc., 2000 U.S. App. LEXIS 6172 (Fed. Cir. 2000) (unpublished). Here, Leoncavallo does not provide teachings that suggest the desirability or incentive to modify the art to come up with the invention of claim 2, namely Leoncavallo does not teach or suggest the projection member in the compartment of applicants' invention.

As discussed above, Leoncavallo does not disclose any storage compartments for a sample tube, but only openings or cutouts 24 of a shelf 12 through which a sample tube can be inserted. These openings are associated with retaining means 34. However, the retaining means disclosed by Leoncavallo do not retain a sample tube at a predetermined position, but at any position within a predetermined range. Moreover, Leoncavallo only discloses and permits insertion of a sample tube into openings 24 from above (see column 3, lines 39-41, and Fig. 7). Leoncavallo does not teach or suggest the possibility of inserting a sample tube into openings 24 from below. In fact, it is not possible to insert a tube from below in view of the shape of the tubes and the shape of the retaining means disclosed by Leoncavallo. Further, Leoncavallo fails to teach or suggest storage compartments adjacent to each other and defined by walls between them. Leoncavallo further does not teach or suggest projections in the inner surface of the wall of

each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment.

The combination of references cited by the office action does not result in claim 2. Berthold does not add to Leoncavallo to come up with the present invention as in claim 2. Berthold discloses a specimen rack composed of a block having a matrix-like arrangement of MXN through chambers, into which MXN cuvettes can be inserted, individually or in the form of strip-racks. Berthold discloses that the cuvettes must be inserted only from the top since the sample tubes of Berthold are physically connected near their top (See Figs 1, 3 and 4). There is no teaching or suggestion in Berthold to provide for projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment. Further, Berthold does not teach or suggest that the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame.

This is in contrast to applicants' invention because the combination of Leoncavallo in view of Berthold still requires insertion of sample tube only from the top side of the frame. Additionally, the combination of Leoncavallo and Berthold does not result in applicant's single rack frame having uniform cross section storage compartments in which the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame. At best, the combination of Leoncavallo and Berthold would lead to a rack with elongated sample compartments that can allow insertion of a sample tube only from the top. Accordingly, Leoncavallo in view of Berthold does not render claim 2 unpatentable.

Reconsideration and withdrawal of the claim rejection to claim 2 under 35 U.S.C. 103(a) as allegedly being unpatentable over Leoncavallo, and further in view of Berthold are respectfully requested.

Claim 2 was further rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz, and further in view of Berthold. Applicants traverse this rejection.

Schwartz does not teach or suggest claim 2. On the contrary, as discussed above, Schwartz does not disclose storage compartments for sample tubes, but rather provides openings or cutouts of a base plate 11 through which sample tubes can be inserted. In that sense, Schwartz is a typical test tube holder that allows a test tube to be inserted only from the top and which retains the test tube through the upper part of the test tube. The openings shown by Figures 14-17 of Schwartz have retaining means 24, 25, 51, but these retaining means do not retain a sample tube at a predetermined position as is the case in applicants' claim 2.

Berthold does not add to Schwartz to come up with applicants' claim 2. As discussed above, Berthold discloses a specimen rack composed of a block having a matrix-like arrangement of MXN through chambers, into which MXN cuvettes can be inserted, individually or in the form of strip-racks. There is no teaching or suggestion in Berthold to provide for projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment. Berthold does not teach or suggest that the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame.

The combination of Schwartz and Berthold does not result in a single rack frame having uniform cross section storage compartments in which the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame. At best, the combination of Schwartz and Berthold would lead to a rack with elongated sample compartments that can allow insertion of sample tubes from the top. Hence, such a combination would not result in applicants' claim 2.

Reconsideration and withdrawal of the rejection to claim 2 under 35 U.S.C. 103(a) as being unpatentable over Schwartz, and further in view of Berthold are respectfully requested.

Claims 1 and 3 were rejected under 35 U.S.C. 103(a) as being unpatentable over Leoncavallo in view of U.S. Patent No. 5,514,343 ("Verwohl"). Applicants traverse this rejection.

As discussed above, Leoncavallo does not disclose any storage compartments for a sample tube, but only openings or cutouts 24 of a shelf 12 through which a sample tube can be inserted. These openings are associated with retaining means 34. However, the retaining means

disclosed by Leoncavallo do not retain a sample tube at a predetermined position, but at any position within a predetermined range. Moreover, Leoncavallo only discloses insertion of a sample tube into openings 24 from above (see column 3, lines 39-41, and Fig. 7). Nowhere does Leoncavallo even hint at inserting a sample tube into openings 24 from below. In fact, insertion of the tubes from below is not possible in view of the shape of the tubes and the shape of the retaining means disclosed by Leoncavallo. Leoncavallo fails to teach or suggest adjacent storage compartments adjacent to each other and defined by walls between them. Leoncavallo further does not teach or suggest projections in the inner surface of the wall of each storage compartment in which the projection being suitable for snapping between two ridges of the outer wall of a sample tube that is positioned within the storage compartment.

Verwohlt does not add to Leoncavallo to come up with the invention as in claim 1 or 3. Verwohlt discloses a microtiration system that comprises a plurality of well and frame-like holder with apertures for receiving the wells. The dimension and the shape of each aperture are such that when a well is inserted into the aperture, the aperture defining means is engaging with the outer surface of the well side wall and is pressed radially outwardly in relation to a central axis of the well till the aperture defining means may snap into locking engagement with the depression or groove formed in the side wall of the well. However, Verwohlt fails to teach or suggest compartments that allow insertions of sample tubes through both the top and the bottom opening of each compartment. Moreover, Verwohlt does not teach or suggest a storage compartment having a constant length that covers a substantial part of the sample tube.

The combination of Leoncavallo and Verwohlt does not result in a single rack frame having uniform cross section storage compartments in which the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame as in applicants' claim 1. Moreover, the combination of Leoncavallo and Verwohlt does not result in a rectangular storage compartment as in applicant' claim 3. Hence, Leoncavallo in view of Verwohlt does not teach or suggest applicants' claim 1 or 3. At best, the combination of Leoncavallo and Verwohlt would lead to a rack with elongated sample compartments that can allow insertion of a sample tube only from the top. Accordingly, Leoncavallo in view of Verwohlt does not render applicants' claims 1 or 3 unpatentable.

Reconsideration and withdrawal of the rejection to claim 1, in the alternative, claim 3, under 35 U.S.C. 103(a) as allegedly being unpatentable over Leoncavallo, and further in view of Verwohlt are respectfully requested.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz as applied to claim 1 above, and further in view of Verwohlt. Applicants traverse this rejection.

As discussed above, Schwartz does not disclose storage compartments for sample tubes, but openings or cutouts of a base plate 11 through which sample tubes can be inserted. The openings shown by Figures 14-17 of Schwartz have retaining means 24, 25, 51, but these retaining means do not retain a sample tube at a predetermined position as in the case of applicants' claim 1. Also as discussed above, Schwartz discloses a typical test tube rack that does not have any compartment to receive a substantial part of the sample tube as in applicants' claim 1.

Verwohlt does not add to Schwartz to come up with the invention as in claim 1 or 3. Verwohlt discloses a microtiration system that comprises a plurality of well and frame-like holder with apertures for receiving the wells. The dimension and the shape of each aperture are such that when a well is inserted into the aperture, the aperture defining means is engaging with the outer surface of the well side wall and is pressed radially outwardly in relation to a central axis of the well till the aperture defining means may snap into locking engagement with the depression or groove formed in the side wall of the well. However, Verwohlt fails to teach or suggest compartments that allow insertions of sample tubes through both the top and the bottom opening of each compartment. Additionally, also as discussed above, Verwohlt does not teach or suggest a storage compartment having a constant length that covers a substantial part of the sample tube.

The combination of Schwartz and Verwohlt does not result in a single rack frame having uniform cross section storage compartments in which the sample tube can be inserted through both the top and the bottom side of the frame with one and the same orientation of the sample tube with respect to the frame as in applicants' claim 1. Moreover, the combination of Schwartz does not result in a rectangular storage compartment as in applicants' claim 3. At best, the combination of Schwartz and Verwohlt would lead to a rack with elongated sample



Serial No. 09/741,542  
Filed: December 20, 2000

compartments that can allow insertion of a sample tube only from the top. Accordingly, the combination of Schwartz and Verwohlt does not render applicants' claim 1 or 3 unpatentable.

Reconsideration and withdrawal of the rejection to claim 1, in the alternative, claim 3, under 35 U.S.C. 103(a) as being unpatentable over Schwartz, and further in view of Verwohlt are respectfully requested.

### **Conclusion**

In view of the above amendments and remarks, applicants request reconsideration and withdrawal of the rejections, and the issuance of a Notice of Allowance.

No fee, other than that associated with a petition for extension of time for responding to the pending office action, is required in connection with the filing of this Amendment. If any fees are deemed necessary, authorization is given to charge the amount of any such fee to Deposit Account 08-2525.

Respectfully submitted,



Attorney for Applicant(s)  
Bernard Lau  
(Reg. No. 38,218)  
340 Kingsland Street  
Nutley, New Jersey 07110  
Telephone: (973) 235-4387  
Telefax: (973) 235-2363

138797